Superintendent Bolling Replies to the Doctors' Indictment of Richmond's Drink. ing Water... Facts and Figures.

-Nothing of recent date has excited more interest among the people of Richmond than the publication by THE TIMES last Sunday of its article on the water we drink. The purpose of THE TIMES was to bring this question before the public and to promote the discussion of a subject so vital to the welfare of the city.

No doubt there are reasons why this disagreeable subject would be cheerfully ignored by the City Fathers, at least for a season, and until the mausoleum of the city's cash is completed. But there was a feeling among our people of great anxiety on the ever present water question, and it

on the ever present water question, and it was growing. The Times knew this, and determined at once to bring the matter before the public.

The result has been what might have been expected, for this morning is laid before the people a reply from Mr. Charles E. Bolling, the Superintendent of the City Water Works, in which he gives the city's side of the case with ability and frankness. He further suggests—as he says he has repeatedly suggested—methods for the improvement of the purity of our water supply. His statements, though dealing with scientific details, will be read with great interest. Oppics of City Water Wogss.

Office of City Water Wores, 912 East Broad Street, Richmond, Va., August 4, 1892. To the Editor of the Times:

There appeared an article in THE TIMES f Sunday, July Sist, headed "The Water e Drink," which demands some notice we Drink," which demands some notice from this department. After publishing the report made to the Chamber of Comthe report made to the Chamber of Com-merce December 22, 1891, by a committee of the Medical Society, composed of Drs. H. M. Taylor, C. R. Tompkins, Charles M. Shields and Benjamin Harrison, it con-tains certain statements from Dr. Hunter McGuire wherein he pronounces our drink-ing water unwholesome and unfit to drink, and recommendations by the said commit and recommendations by the said commit-tee, Dr. McGuireland Mr. Whitcomb to this effect, that we take our water for the new pumps immediately from the river near the New pump-house instead of from the forebay

New pump-house instead of from the foreony at the pump-house.

The article referred to reflects most seriously upon the officers of this department. The committees on water, the Board of Health and the city councils who have had charge of this matter for the last ten wears (for such has been the length of time since our new pumps were put in operation), who sat in a state of idieness and lethargy, and with no interest or care in the matter, allowed this thing to go on, and it remains for lowed this thing to go on, and it remains for a committee of the Medical Society, com-posed of Drs. Hugh M. Taylor, Chris-topher Tompkins, Charles M. Shields and Benjamin Harrison to make a personal examination and find that the people of Richmond have been drinking the con-taminated and polluted water of the canal for years, and it would seem that such a state of things had been allowed to go on all this time with no thought or care on the part of the authorities having the matter in charge. Suppose we look at some of the facts in the case as opposed to the theories which have been given out.

In the summer of 1884 the Committee on Water made an inspection of the caual from the pump-house to Bosher's dam and di-rected that the water flowing from the river above Bosher's dam to the canal and that from each stream emptying into the canal above the pump-bouse should be both measured and analyzed. At that time the water coming from the river into the canal was much less in volume than it is now. Careful measurements of the volumes were Careful measurements of the volumes were made by the City Engineer and analyses by Dr. William H. Taylor, State chemist. It was shown by the analysis of Dr. William H. Taylor that the water in the forebay at the pump-house, which had received all the flow of the tributary streams along the canal, was better than it was in the river above Bosher's dam, due to the settling and agration it gets along the route between the aeration it gets along the route between the dam and pump-house, and the sample taken from the hydrant (owing to the settling in the reservoir) was better than the rest. Furthermore it was shown that the muchtalked-of and condemned water of Tuckahoe creek was even better than Croton water which New York city has spent millions of dollars to procure. It should be observed just here that at this time we are taking from the river above Bosher's dam 261,308 gallons per minute, and from all the streams combined along and tributary to the canal combined along and tributary to the canal 7,872 gailons per minute, nor is the canal a slow-flowing and stagnant stream. but it has a velocity of one mile and a half per hour, and it takes just five hours for the water entering the feeder from the river to reach the pumps. The chances of contamination of each of the small streams flowing nation of each of the small streams flowing into the canal was looked into. With the exception of Tuckahoe creek, the areas drained by the smaller streams were small, the ground cultivated in a very limited manner, few dwelling-houses, and occupants, and they in most instances considerably removed from the banks of the streams. The entire north bank of the canal from the pump-house for four miles west is scantily populated and the watershed a small one. The dividing ridge varies from a quarter of a mile to a mile north of the canal, and nearly all the farm drainage the canal, and nearly all the farm drainage goes northwardly into the Chickahominy river. For a considerable distance along the canal the land is well covered with woods, and is not under cultivation. All of this was under consideration and examination for weeks.

tion for weeks. Last September the afore-mentioned committee, accompanied by Colonel Cutshaw, City Engineer, myself and others, took a train tendered by the Chesapeake and Ohio rallway and ran over our canal. We were back in Richmond in four hours. We got out and looked at Tuckahoe creek where it passes under the railroad, four miles above the dam, and again looked at it where it it joined the feeder. No inspection of its channel and banks was made to learn what evils it bore nor in what masher it acted as a sewer. The waters of none of the little streams were sampled or tested, and I may say just here that all of the streams except Tuckahoe creek find their source from pure springs but a short distance from their final discharge into the canal. It took just four hours for the medical committee to condemn these streams.

We come now to the question of the polluted sewage taken into the canal at what is called the Philadelphia quarry. There are about seventy-five or one hundred laborers here who are day laborers and who live in and near Richmond: they and their families do not reside at the quarry. There are specially provided privies for the use of the workmen, and notices are posted all around that these privies alone must be used: they are not connected with and do not discharge their contents into the little drain which finds its way into the canal. By act of the Legislature, the city has the absolute right to control and prevent the drainage of any fifth into the canal from which she gets her water supply. It will be seen, therefore, that this canal is in no sense a sewer, or no more so than the fiver proper is for all the favor buildings. river proper is for all the farm buildings and villages along its shores above us. The report published in Sunday's Times, made by Drs. H. M. Taylor, Tompkins, Shields and Harrison, was laid before the Chamber of Commerce December 22, 1891, and the Chamber examined carefully into the re-port and had before them also the state-ments of Dr. William H. Taylor, Mr. Hugh Blair, Colonel Cutshaw and myself in re-gard to the healthiness of our drinking water, and the Chamber laid the report about the water on the table and it is there now. If the theories advanced by the com-mittee had been true it is a most serious report published in Sunday's Times, made now. If the theories advanced by the committee had been true it is a most serious reflection upon the Chamber of Commerce, composed of gentlemen who are ever alive to Richmend's interest and welfare, that they should have tabled so important a matter as this, in which the health and lives of our citizens are at stake, and to have allowed this serious and important matter to be buried. The Chamber of Commerce, had the charges made in the committee's report been established, would certainly have brought this important mat.

at or near the pump-house, and the water be pumped directly from the river; and this plan is recommended by both the atgressid committee and Mr. H. D. Whiteomb in his letter to you. Mr. Whiteomb tells you that the pipes can be easily run into this feeder and the water taken there. The gates at the upper end of this feeder have to be kept closed now in order to prevent the water from flowing back from the canal into the river, the surface of the canal being higher than that of the river above Grant's dam. So that in order to carry out this plan the suction pipes would have to be extended to some point in the river above the feeder-gates and above Grant's dam. This is no difficult or expensive thing to do; but is the water in the river at this point better than that in the canal? Is it perfectly pure and unpolluted?

It should be observed that the committee of the Medical Society made no examination or report as to the chances of contamination of the river grow any causes on the south

or report as to the chances of contamination of the river from any causes on the south bank. Their investigation was confined solely to the north side; and they make their recommendation without having given their recommendation without having given this important question any consideration. The volume of water flowing down James river was carefully measured during the summer season some years ago, above Bosher's dam, and ascertained to be 1,300 cubic feet per second, and from certain reference points, such as the depth of water on the crest of Bosher's dam, it is about the same in the summer season, unless the season is a rainy one. We take from above Bosher's dam about 600 cubic feet of water per second into the canal, so that leaves 700 cubic feet to flow on down the river channel.

second into the canal, so that leaves 700 cubic feet to flow on down the river channel. Grant's dam, starting from the feeder gates, runs obliquely up the river towards the southern shore, joining on to certain ledges of rock until it touches the south bank. This dam was so located as to lead the river over towards the feeder gates and supply the Richmond level of the canal with water and in low stages of the river the flow is directed towards the north bank. A short distance above this dam quite a bold stream—Powhite creek—joins the river, and a little distance up this stream is Granite, a large stone quarry, where, there are 200 opera little distance up this stream is Grantie, a large stone quarry, where there are 200 oper-ators, a large number of them residents. All the sewage from this settlement is borne to the river. A few miles further up this stream is Bon Air, which also has, I am in-formed, a population of about 200 in sum-formed. mer time. The sewage from this place is also drained to the river.

About two miles above Grant's dam, on the south side of the river, is the West-

ham granite quarry, where there is again a settlement with a population of about 100 persons, some of whom are residents. All of the sewage and filth at this point is washed directly into the river. Here then, close to the pump-house, we have a population of about 500 persons and all the drainage from their homes finds its way into the river at points above where its way into the river at points above where
the intake chamber for our pumps
would be situated according to the quoted
recommendation, and the volume of
water in the river with which
this would be mingled but little greater than
the river water in the canal. I should say
that this pepulation is at least four times
greater than the resident population on the
north side, and that the drainage from their
homes is much pearer the pumps if the homes is much nearer the pumps, if the pipe connection is made to the river. The main point is this: Is the water in the river better than that in the canal at this point? I think not.

1 come now to Dr. McGuire's statement in The Trans' article of the 31st.
When asked the question, "What do I think about the drinking water at Richmond?" "I think it is utterly unfit to drink," he states that the report of the committee appointed by the Chamber of Commerce shows at different points the sewage and filth which comes into the canal. One would imagine from this that each stream flowing into the canal was laden with sewage. Such is not the case, Dr. H. N. Tay-lor found at Westham some little distance from the canal old pits from which the clay from the canal old pits from which the clay had been removed for making bricks. In one of these pits was found three dead rats and a dead fish and one would infer that every time it rained the entire contents of these stagnant pools were borne into the canal. Such is not the case. These pits are separated from the

canal by a solid clay bank, and some little distance from the canai, and the surface drains do not bear the whole stagnant contents into the canal, but only the overflow.

Dr. Tompkins stated that there was an old ditch near the Philadelphia quarry in which dead horses and cows were thrown, and that the contents of the ditch finally found its way to the canal. There is one known instance when a horse fell in the ditch and was killed or fell and was thrown into the ditch, which was reported to me, and I had the horse buried in a field near by soon after it happened.

Not a single examination of the waters of these streams was made to ascertain whether they were filled with sewage and thoroughly polluted or whether they were pure.

The Council Committee on Water had

thoroughly polluted or whether they were pure.

The Council Committee on Water had had each one carefully examined and analyzed, and that report is on file in the Council chamber. Dr. McGuire says further that the canal 's a semi-stagnant stream for nine miles. The whole distance from the pump-house to the river above Bosher's dam along the canal is about seven miles, and the velocity of the current is about a mile and a half an hour, and the quantity of water nearly one-half the river flow.

Can this be called a semi-stagnant stream? Dr. McGuire says. "I think it very probable that one case of diphtheria at a dairy farm on the Tuckahoe creek last fall caused the malignant epidemic of diphtheria that we had then." Dr. McGuire does not state whether this particular case of diphtheria happened prior to the epidemic that raged in Richmond or not. It would be well to know that fact.

The diphtheria was prevalent in Ashland.

know that fact.

The diphtheria was prevalent in Ashland, in the counties of Goochland, Chesterfield, Hanover, Albemarle and some others. Was the diphtheria which prevailed at these places also traceable to the drinking water of Richmond, all proceeding from the one case on the Tuckahoe creek? There are several other statements which Dr. McCoults makes which properly belong to Guire makes which properly belong to medical science, which I do not propose to medical science, which I do not propose to discuss, but there is one, namely, a comparative analysis made by Professor Mallet of the University of Virginia last October, of the hydraut water we drink and the well water from Dr. McGuire's home on the Brook road. The sample of well water was taken by Colonel Cutshaw, and Professor Mallet was in entire ignorance of what Mallet was in entire ignorance of what either of these waters were or where they came from. I herewith give Professor Mal-let's analysis and his letter on the subject. let's analysis and his letter on the subject.
In the article in Sunday's Times, Dr. McGuire asked Professor Mallet two questions.

1. "Can you tell from a chemical analysis of water only whether it is pure or not?"

2. "Can you tell from analysis of water whether it is infected with poisonous germs, dishtures to the old favor.

such as those of diphtheria, tephoid fever, Professor Mallet's answer is given in full in Sunday's Times. The postscript to his letter says: "In case you do not find my quotation sufficiently direct and categorical

in answer to your questions I will simply say 'No' to each of them."

See Professor Mallet's report and letter October 31, 1891.

October 31, 1891.

UNIVERSITY OF VIRGINIA,
October 31, 1891.

Charles E. Bolling, Esq., Superintendent
City Water Works, Riehmond, Va.:
Dear Sir,—By working a good deal at
night I have pressed forward as much as
possible the examination of the two samples
of water sent me by you, and am now abla of water sent me by you, and am now able to send you the results, as given in the report I herewith enclose. No. 1 seems to be of very fair character, but the results for No. 2 as to total solids, chlorine, free ammonia, and especially nitrites and nitrates, show this to be of totally different nature, and class it among waters of highly suspi-cious character. I shall be glad to learn from you what is the history of each of these samples. I can then judge whether any of the determinations now reported on ought to be repeated on the spot without al-

Report of chemical examination for sanitary purposes of two samples of water from Bichmond. Va., for Charles E. Belling, Esq., superintendent City Water Works, October 31, 1891.

Sample No. 1 was taken from a faucet in the office of City Water Works, Richmond, Va., October 22, 1891. Sample No. 2 is from Dr. Hunter McGuire's well at his residence on Brook road, taken and scaled by Colonel W. E. Cutshaw, City Engineer, October 21, 1891.

	Sample Ja Water	mes River No. 1.	Sample Well Water, No. 2.	
Clearness or turbidity	Distinctly turbid though not very much so.		Not quite clear, but clearer than No. 1.	
Color in 2-feet tube	Very light brown.	yellowish	Very light yellowist brown, but much fainter-almost col orless.	
Odor and taste	None		None.	
Reaction to test paper	Practically very fair acidity.	neutral— it trace of	Slight, but decide acid reaction.	
	Parts per Million.	Parts per U. S. Gall. 231 C. L	Parts per Million.	Parts per U. S. Gall 221 C. I.
Total solids in solution	88.4 None. Too small to be accu- ately mea- sured by ordinary soap pro-	5.1637 None. do.	263.2 None. do.	15.8744 None, do.
ChlorinePhosphatos	cess. 2.06 Trace too minute to have any special sig- nificance.	.1203 do.	67.91 do.	8.9200 do.
By Combustion Process.				
Organic carbonOrganic nitrogen	1.32	.0771 .0123	1.07	.0625 -0111
By Wanklyn-Nessler Process.				
"Free" ammonia. Albuminoid Ammonia. Nitrogen of nitrites. Nitrogen of nitrates.	.009 .954 None. .034	.0005 .0037 None. .0014	.038 .060 .012 11.381	.0093 .0035 .0007 .6648
. By Kubel Permanganate Process.				
Oxygen consumed	1.260	.0741	1.028	.0000
Dissolved Gases-Cubic centimeters per Liter				
Carbon dioxide	4.23 4.07 10.48 15°.5°C.	.977 ,940 9-491 599-9Fah	6.16 3.30 10.23 do.	1,423 .762 2,563 do.

Professor Mallet plainly says that No. 1 (James river water) seems to be of a very fair character, but the results for No. 2 Dr. McGuire's well water) as to total solids. chlorine, free ammonia, and especially nitrites and nitrates, show this to be of a totally different nature and class it among waters of a highly suspicious character. Professor Mallet evidently expresses an opinion here based upon results obtained

from chemical analysis alone. If Dr. McGuire still prefers to drink water of a "highly suspicious character" I am sure neither I nor the public will object. Professor Mallet clearly does not mean to state that chemistry does not show whether water is healthy and fit to drink; he merely (I presume) means to say that chemical analysis does not destroy the germs of typhoid, cholera, &c.

An analysis and report was also made by Dr. William H. Taylor, State Chemist, October 19, 1891, which I give below. Dr. Taylor is unbiased and unprejudiced and most skilled in his profession. Dr. Taylor would not have made the following statement unless he was sure of the truth: LABORATORY STATE ASSATER AND CHEMIST, 606 EAST GRACE STREET,

RICHMOND, VA., October 19, 1891. Superintendent Charles E. Bolling: Dear Sir, - The following are the results of my analysis of the sample of mine-water which you submitted to me for examina-

They are expressed in grains per gallon of 231 oubic inches. Organic and volatile matter.... 1.8662 Mineral matter...... 33.1246

certainly have brought this important matter to the attention of the City Council and demanded that the recommendations made by the medical committee be carried out.

Let us examine into this recommendation, namely, that the water pipes supplying the pumps be extended out into the river

is better than the water of the creek into which it is discharged, judging from an analysis of the creek-water which I made in analysis of the creek-water which i made in August, 1884. It is, however, not fit to be used as an ordinary drinking water—not so much on account of any animal or vegetable impurities as because of the large amount of sulphate of iron (copperss) which it contains, and which, in fact, converts if from a potable water into a mineral water. potable water into a mineral water. The sulphate of iron, so far as it can influence our city water, is beneficial rather than injurious. In connection with this investigation I

have thought it advisable also to examine our city water, the results of which examination I append. The sample was taken on the lith instant from a hydrant in my la-boratory, and is consequently not the hy-pothetical water of a river, or a creek or a mine, but the actual water we drink. It was decidedly opalescent in appearance, but not at all turbid. Rain had fallen quite copiously the day before, but there had been no other extensive rains recently. The results are in grains per gallen of 281 cubic

inches: Organic and Volatile Matter. 2383 Mineral Matter 4.0654 

In consideration of the fact that Professor

Mailet and Dr. Taylor had made only chemical analysis of our drinking water and the idea prevailed that the water was unhealthy on account of bacteria it contained. I concluded it was best to have the water examined for bacteria. I sent two samples of water drawn from the fancet in my office to Professor E. A. Fuertes, Cornell University, Ithaca, N. Y., who made his report November 6, 1891. The number of bacteria found per cubic centimeter in one sample was lifty and in the other seventy-two. He states that the number of plant forms found were small and not of a character to attach suspision to the water, so it will be seen that a microscopical and biological examination was made to find what germs our drinking water contained, and those found were few in number and unsuspicious. See Professor Fuertes' report and tables given herewith:

Fuertes' report and tables given herewith:

Coarell University,

College of Civil Engineering,

ITHAGA, N. Y., Nov. 6, 1891.

Charles E. Bolling, C. E. &c., Superintendent City Water Works, Richmond, Va.;

Dear Sir.—The two samples of water sent by you to this college on October 28th, uit, for the purpose of sanitary examination, arrived in excellent condition, the temperature of the bottle packed in ice being between seven and six degrees when opened. The results of the examination fail to discover anything harmful in the water, which seems to be of good quality in all respects. A microscopical examination shows a small number of plant forms, but they are not of a character to attach suspicion to the water. The following table contains the results obtained, in parts per million:

	No. 1.		No. 2.	
	Pts. Per Million.	Grs. Per	Pts. Por Million.	Grs. Per
Fotal solids	64. 5.5 .08	3.7324 .3398 .0019	48. 5. .02	2.7993 .2916 .0012

ery respectfully yours. E. A. FUERTES.

E. A. FLERTES.

Director Coll. Civil Engineering, Cornell
University, Ithaca, N. Y.
The foregoing analysis was made by Instructor lienry N. Ogden, in charge of the
Sanitary Laboratories.

On December 22, 1891, the committee,
composed of Drs. H. M. Taylor, Tompkins and others, made the report published
in Sunday's Times to the Chamber of Commerce, and I submitted the above given
statements and examinations made by Professors Mailet, Fuertes and Dr. William H. fessors Mallet, Fuertes and Dr. William H. Taylor, and the Chamber also considered Taylor, and the Chamber also considered statements as to the good character and wholesomeness of our drinking water, made by Colonel Cutshaw, Mr. Hugh Blair and Dr. William H. Taylor, and the Chamber of Commerce, which has at heart Richmond's welfare and success, was convinced mond's welfare and success, was convinced by the facts presented above that the peo-ple of Richmond were not drinking water dangerous to health and life, and, there-fore, made no recommendation to the City Council for any change in the method of getting our water; although at that time they did submit a recommendation to the Council upon many other sanitary matters. Had the Chamber of Commerce been as-Had the Chamber of Commerce been assured of the theories and suspicions contained in the report of Drs. Hugh M. Taylor, Tompkins, &c., they would have ecommended the changes suggested by

In conclusion I will say that it will be both my pleasure and duty to execute any orders the City Council may give, and should it be their will to take the water directly from the river above Grant's dam, near the pump-house, it can be done. What 'he cost will be I can't say just now, as I have not made an estimate. But not only will the pipes have to be laid to a point above the gates, but an inlet chamber of brick or stone will have to be built, and Grant's dam, now in very bad condition, repaired. Before this is done, however, I wish to call atten-tion to the recommendation as to the best manner of getting our water, and furnish-ing it at all times nearly clear, contained in my angual report for 1886, which each year I have repeated. This recommendation I still adhere to, and advise, namely, to build a large storage lake on the flat lands lying between the river and canal just west of the Philadelphia quarry. This lake would contain two hundred mil-lion gallons of water. The water would be brought to the pumps by suction pipes about one mile. The lake can be fed from the river itself brought by a conduit about one-quarter of a mile long, joining the lake and the river just at the falls at the fivemile lock and lower end of Williams Is-land. By this means the water would be taken from the river above the points where it would receive any contamination from the quarries and settlements on the south shore, and where it would be entirely cut from Tuckahoe creek and the other small creeks and branches which now join the canal. It would be the same as if we had built a conduit from the pump-house to the river above Bosher's dam. would then get river water only. In the event of the river becoming muddy we would have on hand ready to be used over two hundred million gallons of clear water taken from the river—about clear water taken from the river—about twenty days' supply at the present rate of pumping at the New pump-house. Then should it be necessary to fill the lake with maddy water from the river, spread over so large an area the water would be greatly improved by sedimentation and delivered at the pumps greatly improved and nearly clear. Should this plan be adopted, how could even the most fastidious person question the water? Moreover, the point of intake for water would be so far above the city that it would be more than a hundred years before Richmond's growth would reach it.

I beg to say that no drinking water has been subjected to such scientific scrutiny for the past seventeen years and come forth for the past seventeen years and come forth so free from suspicion—not from any one trial, but from repeated examinations by scientists skilled in their professions and unprejudiced in their reports. In making this public statement I have endeavored to give all the facts bearing on the szbject of our drinking water. I have no desire to conceal anything. I simply wish our people to examine the whole question and decide for themselves. cide for themselves.

Yours very truly, CHARLES E. BOLLING, Superintendent,

A Blue Book for Richmond. The J. L. Hill Printing Company, of this city, with a commendable enterprise are about to issue an elite dictionary or blue book of Richmond. It will contain the addresses of the society and well-to-do people dresses of the society and well-to-do people of the city; also a list of members of the various clubs and other organizations, diagrams of the theatres and halls and other information of value. The book will be handsomely gotton up in blue and gold, and will be a magnificent specimen of typographical art. Richmond has never as yet issued a blue book, and it will supply a long felt want. Merchants will find it in valuable in addressing circulars, &c., to a desirable list. To society people it will be valuable in addressing circulars, &c., to a desirable list. To society people it will be found to be of great convenience in addressing party, wedding and other invitations. All of the prominent cities of the country boast of their blue book, and we have no doubt it will be well received here. The list of names are now being prepared by several well known society ladies. It is intended to issue the book early in November.

REDUCED RATES.

Knights of Pythias, Uniform Rank, Su-preme Grand Lodge and Biennial Encampment, Kansas City, Mo.

For above occasion the Richmond and Danville ratiroad will sell tickets to Kanaas City and return from important coupon stations at one first-class fare for the round-

Tickets on sale August 18th to 20th inclusive, limited returning September 15th, 1892.

PICTURINGS, FRAMINGS, ETCHINGS, PAINTINGS.

Our prices are so low that reductions never touch us. Best finish and quality Frames. High grades and cheap ones.

# SOL J. BINSWANGER,

213 EAST BROAD STREET. Kodak Supplies. Foto and Art Stock. WATER FILTERS, &c.

# PURE WATER.

Can you afford to run the chances of having your family sick by drinking impure, unfiltered water, made more so by the mild winter, which has left all the germs of last summer, which will be increased as the weather gets warmer, and which your family physician will tell you causes bowel trouble and other complaints, when you can buy the

# PASTEUR FILTER,

which will last you a lifetime, and cannot get out of order, for \$9? This is a serious matter and you should give it some attention at once by calling on us.

### RICHMOND CHINA CO., 1003 MAIN STREET,

SEE OUR PERFECTION REFRIGERATORS. [au7-su,tu,th-3t]

ADVICE OF MR. HENRY J. LAMBERT,

WHOSE LONG AND SUCCESSFUL business career has made his name familiar in both Richmond and Norfolk, pays the following tribute to Dr. COATES, of 708 Franklin street, Richmond, Va.:



NORFOLK, VA., July 21, 1892. Dr. L. P. Coates, Richmond, Va.

Dr. L. P. Coates. Richmond, Va.:

Dear Sir.—It sives me great pleasure to teatify in this manner to the relief you have given me from Catarrh, from which I have suffered for some time. I had constant head-acide, unpleasant taste in my mouth and a constant expectoration from accumulation of mucus in the throat, with loss of appetite and a general breaking down of the system. I am happy to say to-day I am relieved by your treatment from these ills and feel myself again. I trust that all who may be likewise afflicted with CaTarrid will take advantage of your treatment and meet a speedy cure also. of your treatment and meet a speedy cure also.
Very respectfully, &c.,
HENRY J. LAMBERT,
Sixth ward, Avenue A.

DR. L. PEARCE COATES, OFFICES: 708 east Franklin Street, Richmond, Va. Office hours, 9 to 12 M.; 2 to 4 and 6 to 8:30 P. M. Sundays, 9 to 12 M.

SPECIALTIES-CATARRH, Nose, Throat and Chest; also, Rheumatism. Asthma and all curable diseases treated with success.

Consultation at office or by mail free. Medicines free to patients. If you live at a distance send for symptom blank.

BOOTS, SHOES, &c.

What are you wearing? It isn't possible that your feet are still encased in heavy win ter shoes at this season of the year! If this is not only possible but true, isn't it about time that you made a change and wen't our Oxford Tie be a most decided change for the better? For's wonderfully light shoe it is wonderfully durable, and for a wonderfully good shoe the price is wonderfully light. Don't be surprised if it sees you through another season as well as this. Isn't economy in footwear getting pretty near its limit when we are selling such a shoe as this for \$1.00 to \$2.50.

# HERMAN C. BOSCHEN,

507 EAST BROAD STREET.

\$3.75 GETS THE BEST KANGAROO In this city for \$5.00.

\$4.50 GETS THE BEST NEWARK DENUME HAND-MADE LOW SHOE.

\$3.00 GETS A RUSSIAN CALF TAN

\$4.00 GETS PATENT LEATHER LOW-

ALL LOW SHOES AT COST

J. A. GRIGG, Pace Block.

ROSE'S SPECIAL SALE.

STOVES, TINWARE, CROCKERY.

GLASSWARE,

LAMP GOODS.

IT WILL PAY ALL HOUSEKEEP ERS TO TAKE ADVANTAGE OF THIS

ROSE'S

No. 105 E. Broad St.

CLOTHING, &c.

SUNDAY, AUGUST 7, 1892.

# WHO WILL QUESTION IT.

It is but saldom that the opportunity so presents itself as to enable us to present for your inspection such an array of bargains as the present time affords.

### A PHENOMENAL SUCCESS

is all we can say in regard to special SEVEN. FIFTY SUIT SALE. Our sales have been enormous, still we are filling up the gaps as fast as possible.

DO YOU NEED A SUIT? ARE YOU PREPARED TO PURCHASE? ARE YOU AN ECOMONICAL BUYER? DOES A SAVING INTEREST YOU?

If the above questions will interest you we are the benefactors by offering you the choice of any STRICTLY ALL-WOOL SUIT OF MEN'S CLOTHING, marked and

\$14, \$13, \$12 and \$10

# L. FELLHEIMER,

225 E. BROAD, CORNER THIRD.

### SCHAAP'S HERE WE ARE AGAIN! Gentlemen's Furnishings

continuous flow of patropage means but one

are creating quite a stir on Broad street. A

PRICES AND STYLES are right. We carry an enormous stock of goods and lead in the matter of NOVELTIES Popular prices in plain figures on everything. We cater especially to the army of lady pur-

OUTING SHIETS, BELTS, SASHES at irre-

UNDERWEAR, HOSIERY, HANDKER-CHIEFS, SUSPENDERS, &c., &c. Vistour HAT DEPARTMENT.

A. H. & C. E. SCHAAP,

WIDE-AWAKE FUNISHERS. iy30 519 EAST BROAD STREET.

COOL KEEP

EAT ICE CREAM. We are selling the BLIZZARD FREEZEB

at the following prices : 2-quart Ice Cream Freezer at \$1.12. 3-quart Ice Cream Freezer at \$1.35. 4-quart Ice Cream Freezer at \$1.65. 6-quart Ice Cream Freezer at \$2.10. 8-quart Ice Cream Freezer at \$2.70.

10-quart Ice Cream Freezer at \$3.30. This is the quickest and best Freezer in the city. If you do not need one now it will pay you to buy one for next season at these prices.

#### RICHMOND CHINA COMPANY, 1003 Main Street.

GEOCEBIES WAY DOWN.

Six pounds Granulated Sugar for 250.; Good Green Rio Coffee, 16c.; Arbuckle's (best,) Ariosa 20c.; California Hams, 10c.; Old Rye Whisky (pure), \$2 a gallon; Harvest Whisky, \$1.25; Sea-Salt for baths, 254c, per pound; Pure Cider Vinegar, 25c. a gallon; Mixed Spices for pickling, 20c. a pound; Snow Flake Patent Family Flour, 95 a barrel, 32c. a sack; Silver King (Minnesota Patent) Family Flour, \$5.50 a barrel, 35c. a sack; 8 bars large Scap for 25c.; Good Tea, Green or Mixed, 25c.; Roasted Rio Coffee, 18c. a pound; 4 pounds Carolina Rice (whole grain) for 250.; Pickles. Sc. a quart; Marvin's Milk Lunch Crackers, 3 pounds for 25e.;

Pure Lard to a pound. Call for my price list. S. ULLMAN'S SON. 1830 east Main.

jy 10-suts

TO THE PUBLIC GENERALLY.

On and after this date, August 4th, 1898, I will furnish meals every court-day at (20c.) twenty-five cents, and guaranteed first-class, and also all kinds of drinks, such as whisay, wine, brandy and cool lager beer always on hand, and lemonade made to order, at the EFFINYHORN HOUSE, Cumberland Courthouse, Va.

JOHN ROBINSON, Agent.

MONEY.

If you want any at 6 PER CENT, call and see us. We mean on Good City Real Estate.

CORB & WINGFIELD,

au7-1t No. 901-east Main street